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	Y SOKOLOFF TAYLO	RIES, LAURIE ANNE		
12400 WILSHIRE BOULEVARD SEVENTH FLOOR			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)			
	09/967,167	CHU ET AL.			
Office Action Summary	Examiner	Art Unit			
	Laurie Ries	2176			
The MAILING DATE of this communication ap Period for Reply	opears on the cover sheet with the o	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REP. THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a re  - If NO period for reply is specified above, the maximum statutory perior  - Failure to reply within the set or extended period for reply will, by statu.  Any reply received by the Office later than three months after the mail earned patent term adjustment. See 37 CFR 1.704(b).	I. 136(a). In no event, however, may a reply be tin eply within the statutory minimum of thirty (30) day d will apply and will expire SIX (6) MONTHS from tte, cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 26	November 2004.	•			
·— · · _	· •				
3) Since this application is in condition for allow					
Disposition of Claims					
4) ☐ Claim(s) 1-53 is/are pending in the application 4a) Of the above claim(s) is/are withdr 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-53 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and	awn from consideration.				
Application Papers					
9) The specification is objected to by the Examiner.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the					
Priority under 35 U.S.C. § 119	·				
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the prapplication from the International Bure * See the attached detailed Office action for a li	ents have been received. ents have been received in Applicat riority documents have been receive eau (PCT Rule 17.2(a)).	ion No ed in this National Stage			
Attachment(s)	_				
1) Notice of References Cited (PTO-892)	4) Interview Summar Paper No(s)/Mail D				
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date</li> </ul>		Patent Application (PTO-152)			

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### **DETAILED ACTION**

This action is responsive to communications: amendment, filed 11/26/2004, to the original application filed 9/28/2001.

Claims 1-53 are pending. Claims 32-53 are newly added claims. Claims 1, 11, 21, 32, 42, 43, and 53 are independent claims.

### Response to Arguments

Applicant's arguments, see amendment, filed 9/7/2004, with respect to the rejection(s)of claim(s) 1-31 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 35 U.S.C. 103(a).

# Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 46 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 46 recites the limitation ""in c)" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-10, 21-33, 35-36, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over "User Interface Markup Language (UIML) Draft Specification Document Version 17", Harmonia, Inc, hereafter referred to as "Harmonia") in view of Ikemoto (U.S. Patent 5,969,717).

As per claims 1, 2, 21 and 23, Harmonia discloses a system and method f dynamically adapting a presentation generated by an application to a display screen of any of a number of different device platforms including a) providing a number of graphical user interface components in a hierarchical configuration (See Harmonia, Page 23, Section 6.4), b) arranging the graphical user interface components on a page as a function of the hierarchy (See Harmonia, Page 24, Section 6.4.1), and where b) includes nesting, or identifying graphical user interface components that represent the lowest hierarchical level and a highest layout priority within the hierarchical configuration

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(See Harmonia, Page 24, Section 6.4.1, Paragraph 2). Harmonia does not disclose expressly c) selectively transforming one or more of the graphical user interface components to adjust the size of the page to be closer to the maximum fill of a display screen of one of the different device platforms running the application than filled without transformation. Ikemoto discloses that the graphical user interface components are added or transformed to adjust to the size of the page of the display device. (See Ikemoto, Column 11, lines 14-33). Harmonia and Ikemoto are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the arrangement and transformation of graphical user interface components of Ikemoto with the method of adapting a presentation to heterogeneous device platforms of Harmonia. The motivation for doing so would have been to determine the display position of the components. (See Ikemoto, Column 10, lines 26-27). Therefore, it would have been obvious to combine Ikemoto with Harmonia for the benefit of determining the display position of the components to obtain the invention as specified in claims 1, 2, 21 and 23.

As per claims 4-6 and 24, Harmonia and Ikemoto disclose the limitations of claims 1 and 21 as described above. Ikemoto also discloses selecting alternative graphical user interface components as a function of transformation rules when the display screen is over-filled by the page (See Ikemoto, Column 12, lines 39-54), adding graphical user interface components to the page as a function of the hierarchical configuration when the display screen is under-filled by the page (See Ikemoto, Column

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14, lines 39-61), and repeating a), b) and c) to generate another page with the remaining graphical user interface components when the page substantially fills the display screen (See Ikemoto, Figure 14, element 1403). Harmonia and Ikemoto are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the arrangement and transformation of graphical user interface components of Ikemoto with the method of adapting a presentation to heterogeneous device platforms of Harmonia. The motivation for doing so would have been to determine the display position of the components and thereby increase the working efficiency of the interface designer. (See Ikemoto, Column 10, lines 26-27, and Column 2, lines 20-24). Therefore, it would have been obvious to combine Ikemoto with Harmonia for the benefit of determining the display position of the components and increasing the working efficiency of the interface designer to obtain the invention as specified in claims 4-6 and 24.

As per claims 7 and 28, Harmonia and Ikemoto disclose the limitations of claims 1 and 21 as described above. Harmonia also discloses applying a set of style guide parameters to each of the graphical user interface components to create uniformity in the visual appearance of the graphical user interface components (See Harmonia, Page 25, Section 6.5).

As per claim 8, Harmonia and Ikemoto disclose the limitations of claim 1 as described above. Harmonia also discloses arranging the graphical user interface

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components as a function of properties specified by the application (See Harmonia, Page 25, Section 6.5, paragraph 1).

As per claim 9, Harmonia and Ikemoto disclose the limitations of claim 1 as described above. Harmonia also discloses generating a set of proposed device platform specific pages (See Harmonia, Page 10-11, Section 3.1.3) and selecting at least one device platform specific page from the set to display the graphical user interface components with the display screen (See Harmonia, Page 23, Section 6.3, paragraph 1 – Description).

As per claim 10, Harmonia and Ikemoto disclose the limitations of claim 9 as described above. Harmonia also discloses sizing each of the proposed device platform specific pages as a function of the graphical user interface components arranged to form each of the proposed device platform specific pages (See Harmonia, Page 25, Section 6.5, paragraph 2).

As per claim 22, Harmonia and Ikemoto disclose the limitations of claim 21 as described above. Harmonia also discloses that the hierarchical configuration is an intermediate representation including a number of container nodes, such as frames, and a number of component nodes, the component nodes representing the graphical user interface components (See Harmonia, Page 24, Section 6.4.1, paragraph 3).

As per claim 25, Harmonia and Ikemoto disclose the limitations of claim 21 as described above. Harmonia also discloses that the graphical user interface components include device platform independent graphical user interface components (See Harmonia, Page 9, Section 3.1).

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As per claims 26 and 27, Harmonia and Ikemoto disclose the limitations of claim 21 as described above. Harmonia also discloses transforming the graphical user interface components to graphical user interface components that are specific to the target device platform and transforming a composite graphical user interface component including a number of graphical user interface components to a composite graphical user interface component that is specific to a target device platform (See Harmonia, Page 24, Section 6.4.1).

As per claim 29, Harmonia and Ikemoto disclose the limitations of claim 21 as described above. Harmonia also discloses that the target device platform includes one of a pager, wireless phone, personal digital assistant, hand-held personal computer, vehicle navigation system, and notebook personal computer (See Harmonia, Page 5, Section 1.3, paragraph 4 – "Device").

As per claim 30, Harmonia and Ikemoto disclose the limitations of claim 21 as described above. Harmonia also discloses that the transformation module is operable to generate a set of possible device specific pages of various sizes and select therefrom (See Harmonia, Page 5, Section 1.3, paragraph 7 – "Rendering").

As per claim 31, Harmonia and Ikemoto disclose the limitations of claim 21 as described above. Harmonia also discloses that the target device platform includes any one of a number of different device platforms (See Harmonia, Page 5, Section 1.3, Paragraph 6 – "Platform").

As per claims 32 and 35-36, Harmonia discloses an article of manufacture having one or more recordable media storing instructions thereon which, when executed by a

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system, causes the system to dynamically adapt a presentation generated by an application to a display screen of any of a number of heterogeneous device platforms according to a method including a) providing a number of graphical user interface components in a hierarchical configuration (See Harmonia, Page 23, Section 6.4), and b) arranging the graphical user interface components on a page as a function of the hierarchy (See Harmonia, Page 24, Section 6.4.1). Harmonia does not disclose expressly c) selectively transforming one or more of the graphical user interface components to adjust the size of the page to be closer to the maximum fill of a display screen of one of the heterogeneous device platforms running the application then filled without transformation, selecting alternative graphical user interface components as a function of transformation rules when the display screen is over-filled by the page, or adding graphical user interface components to the page as a function of the hierarchical configuration when the display screen is under-filled by the page. Ikemoto discloses that the graphical user interface components are added or transformed to adjust to the size of the page of the display device. (See Ikemoto, Column 11, lines 14-33). Harmonia and Ikemoto are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the arrangement and transformation of graphical user interface components of Ikemoto with the method of adapting a presentation to heterogeneous device platforms of Harmonia. The motivation for doing so would have been to determine the display position of the components. (See Ikemoto, Column 10, lines 26-27). Therefore, it would have been

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obvious to combine Ikemoto with Harmonia for the benefit of determining the display position of the components to obtain the invention as specified in claims 32 and 35-36.

As per claim 33, Harmonia and Ikemoto disclose the limitations of claim 32 as described above. Harmonia also discloses nesting, or identifying graphical user interface components representative of the lowest hierarchical level and a highest layout priority within the hierarchical configuration (See Harmonia, Page 24, Section 6.4.1, paragraph 2).

As per claim 38, Harmonia and Ikemoto disclose the limitations of claim 32 as described above. Harmonia also discloses applying a set of style guide parameters to each of the graphical user interface components to create uniformity in the visual appearance of the graphical user interface components (See Harmonia, Page 25, Section 6.5).

As per claim 39, Harmonia and Ikemoto disclose the limitations of claim 32 as described above. Harmonia also discloses arranging the graphical user interface components as a function of properties specified by the application (See Harmonia, Page 25, Section 6.5, paragraph 1).

As per claim 40, Harmonia and Ikemoto disclose the limitations of claim 32 as described above. Harmonia also discloses generating a set of proposed device platform specific pages (See Harmonia, Page 10-11, Section 3.1.3), and selecting at least one device platform specific page from the set to display the graphical user interface components with the display screen (See Harmonia, Page 23, Section 6.3, paragraph 1 – "Description").

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As per claim 41, Harmonia and Ikemoto disclose the limitations of claim 40 as described above. Harmonia also discloses sizing each of the proposed device platform specific pages as a function of the graphical user interface components arranged to form each of the proposed device platform specific pages (See Harmonia, Page 25, Section 6.5, paragraph 2).

Claim 42 is rejected on the same basis as claim 1.

Claims 3, 11-20, 34, and 43-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over "User Interface Markup Language (UIML) Draft Specification Document Version 17", Harmonia, Inc, hereafter referred to as "Harmonia") in view of Ikemoto (U.S. Patent 5,969,717) as applied to claims 1 and 32 above, and further in view of Kashiwagi (U.S. Patent 6,037,939).

As per claim 3, Harmonia and Ikemoto disclose the limitations of claim 1 as described above. Harmonia and Ikemoto do not disclose expressly reducing the size of the graphical user interface components as a function of transformation rules when the display screen is over-filled by the page. Kashiwagi discloses that the size of a graphical user interface component is resized in response to the operable range and size of the overall image. (See Kashiwagi, Column 14, lines 28-44). Harmonia, Ikemoto, and Kashiwagi are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the resizing or reducing of a graphical user interface component with the system and method of

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adapting a presentation to heterogeneous device platforms of Harmonia and Ikemoto. The motivation for doing so would have been to allow the user to interactively manipulate the data retained in the system including changing a displayed image. (See Kashiwagi, Column 2, lines 44-60). Therefore, it would have been obvious to combine Kashiwagi with Harmonia and Ikemoto for the benefit of allowing the user to manipulate the data to obtain the invention as specified in claim 3.

As per claims 11, 43, and 53, Harmonia discloses an apparatus and method of dynamically adapting a presentation generated by a scaleable application to a display screen of any of a number of different device platforms including a) providing an intermediate representation including a number of container nodes in a hierarchical configuration (See Harmonia, Page 24, Section 6.4.1, paragraph 3), b) nesting, or identifying a first container node with the lowest hierarchical level and the highest layout priority in the intermediate representation (See Harmonia, Page 24, Section 6.4.1, paragraph 2), and c) arranging on a page at least one graphical user interface component associated with the first container node (See Harmonia, Page 24, Section 6.4.1). Harmonia does not disclose expressly d) applying a transformation rule to reduce the size of the at least one graphical user interface component when the page over fills a display screen of one of the different device platforms or e) adding at least one graphical user interface component from a hierarchically related container node when the page under fills the display screen. Ikemoto discloses that the graphical user interface components are added or transformed to adjust to the size of the page of the display device. (See Ikemoto, Column 11, lines 14-33). Harmonia and Ikemoto are

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analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the arrangement and transformation of graphical user interface components of Ikemoto with the method of adapting a presentation to heterogeneous device platforms of Harmonia. The motivation for doing so would have been to determine the display position of the components. (See Ikemoto, Column 10, lines 26-27). Therefore, it would have been obvious to combine Ikemoto with Harmonia for the benefit of determining the display position of the components to obtain the invention as specified in claim 11. Kashiwagi discloses that the size of a graphical user interface component is resized in response to the operable range and size of the overall image. (See Kashiwagi, Column 14, lines 28-44). Harmonia, Ikemoto, and Kashiwagi are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the resizing or reducing of a graphical user interface component with the method of Harmonia and Ikemoto. The motivation for doing so would have been to allow the user to interactively manipulate the data retained in the system including changing a displayed image. (See Kashiwagi, Column 2, lines 44-60). Therefore, it would have been obvious to combine Kashiwagi with Harmonia and Ikemoto for the benefit of allowing the user to manipulate the data to obtain the invention as specified in claims 11, 43 and 53.

As per claims 12 and 44, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Harmonia also discloses selecting

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an appropriate transformation rule as a function of at least one of the graphical user interface components and capabilities of the different device platform (See Harmonia, Page 25, Section 6.5, paragraph 2).

As per claims 13 and 45, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Ikemoto also discloses that the transformation rule is applied as a function of selection rules which indicate the degree of general applicability of the transformation rule to the different display screens (See Ikemoto, Column 2, lines 39-44). Harmonia, Ikemoto, and Kashiwagi are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the selection rules of Ikemoto with the method of Harmonia, Ikemoto, and Kashiwagi. The motivation for doing so would have been to create a graphical user interface interactive screen that is both operable and easy to maintain (See Ikemoto, Column 2, Iines 27-30). Therefore, it would have been obvious to combine Ikemoto with Harmonia, Ikemoto, and Kashiwagi for the benefit of creating a graphical user interface interactive screen that is both operable and easy to maintain to obtain the invention as specified in claims 13 and 45.

As per claims 14 and 46, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Ikemoto also discloses generating a list of possible graphical user interface components sorted by size (See Ikemoto, Figure 9), selecting a graphical user interface component from the list (See Ikemoto, Column 2, lines 44-46), and interchanging the graphical user interface component

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arranged on the page in c) with the graphical user interface component from the list (See Ikemoto, Column 14, lines 39-61). Harmonia, Ikemoto, and Kashiwagi are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the selection rules of Ikemoto with the method of Harmonia, Ikemoto, and Kashiwagi. The motivation for doing so would have been to create a graphical user interface interactive screen that is both operable and easy to maintain (See Ikemoto, Column 2, lines 27-30). Therefore, it would have been obvious to combine Ikemoto with Harmonia, Ikemoto, and Kashiwagi for the benefit of creating a graphical user interface interactive screen that is both operable and easy to maintain to obtain the invention as specified in claims 14 and 46.

As per claims 15 and 47, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Harmonia also discloses transforming a graphical user interface component to a graphical user interface component that is specific to one of the different device platforms (See Harmonia, Page 9, Section 3.1).

As per claims 16 and 48, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Harmonia also discloses transforming a composite graphical user interface component including a number of graphical user interface components associated with a container node to a composite graphical user interface component specific to the different device platform (See Harmonia, Page 24, Section 6.4.1).

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As per claims 17 and 49, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Harmonia also discloses nesting, or selecting a container node that is one of a hierarchical sibling or related higher level container node (See Harmonia, Page 24, Section 6.4.1).

As per claims 18 and 50, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Kashiwagi also discloses that the size of a graphical user interface components are resized in response to the operable range and size of the overall image for each interface component. (See Kashiwagi, Figure 8, element S604, and Column 14, lines 13-59). Harmonia, Ikemoto, and Kashiwagi are analogous art because they are from the same field of endeavor of creating graphical user interfaces. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include the resizing or reducing of the graphical user interface components with the method of Harmonia and Ikemoto. The motivation for doing so would have been to allow the user to interactively manipulate the data retained in the system including changing a displayed image. (See Kashiwagi, Column 2, lines 44-60). Therefore, it would have been obvious to combine Kashiwagi with Harmonia and Ikemoto for the benefit of allowing the user to manipulate the data to obtain the invention as specified in claims 18 and 50.

As per claims 19 and 51, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Harmonia also discloses identifying a container node with at least one graphical user interface component as a hierarchical child (See Harmonia, Page 24, Section 6.4.1).

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As per claims 20 and 52, Harmonia, Ikemoto and Kashiwagi disclose the limitations of claims 11 and 43 as described above. Harmonia also discloses laying out the graphical user interface components on the page as a function of the hierarchical configuration and constraints specified within the application graphical user interface (See Harmonia, Page 24, Section 6.4.1).

Claim 34 is rejected on the same basis as claim 11.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over "User Interface Markup Language (UIML) Draft Specification Document Version 17", Harmonia, Inc, hereafter referred to as "Harmonia") in view of Ikemoto (U.S. Patent 5,969,717) as applied to claim 32 above, and further in view of Orr (U.S. Patent 5,895,477).

As per claim 37, Harmonia disclose the limitations of claim 32 as described above. Ikemoto also discloses repeating providing a number of graphical user interface components in a hierarchical configuration, arranging the graphical user interface components on a page (See Ikemoto, Figure 14, element 1403). Harmonia and Ikemoto do not disclose expressly selectively transforming one or more of the graphical user interface components to generate another page with the remaining graphical user interface components when the page substantially fills the display screen. Orr discloses generating another page when the components do not fit in a single page (See Orr, Column 21, lines 21-34). Harmonia, Ikemoto and Orr are analogous art because they are from the same field of endeavor of organizing online content. At the time of the

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invention it would have been obvious to a person of ordinary skill in the art to include the generation of a new page when the components do not fit in a single page of Orr with the system and method of Harmonia and Ikemoto. The motivation for doing so would have been to provide an automatic means for adapting to changes in content and design while maintaining relationships between content elements (See Orr, Column 2, lines 43-47). Therefore, it would have been obvious to combine Orr with Harmonia and Ikemoto for the benefit of providing an automatic means for adapting to changes in content and design while maintaining relationships between content elements to obtain the invention as specified in claim 37.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Schmitter (U.S. Patent 5,583,983) discloses a multi-platform objectoriented software development and deployment system.
- Scarborough (U.S. Patent 6,353,448) discloses a graphical user interface display method.
- Shirakawa (U.S. Patent 5,956,738) discloses an article layout device for automatic column text layout.
- The UIML Reference Manual, December 1997, discloses a manual for the use of the User Interface Markup Language (UIML).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurie Ries whose telephone number is (571) 272-4095. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached at (571) 272-4090.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LR

SUPERVISORY PATENT EXAMINER